





CITY OF LAS VEGAS		Public Works Department City Engineering Division Offsite Inspection and Testing Section			Procedure No.: PWOIT – MT 103
		Procedure: Selected Backfill Material Report			Page 1 of 6
Revision Number	Prepared By	Reviewed By	Approved By	Date Issued	
0	GGJ	GGJ	BM	GGJ	
Date	1-7-96	5-12-96	9-3-96	9-3-96	
1	GGJ	GGJ	DWM	GGJ	
Date	11-8-00	9-17-01	9-17-01	9-17-01	
2	GGJ	GGJ	DWM	GGJ	
Date	10-5-01	12-12-01	12-12-01	3-1-02	
3	GGJ	GGJ	DWM	GGJ	
Date	6-25-03	6-25-03	7-1-03	7-1-03	
4	GGJ	GGJ	DWM	GGJ	
Date	8-11-04	8-24-04	8-30-04	8-30-04	
5	GGJ	GGJ	TEH	GGJ	
Date	3-14-05	5-24-05	6-6-05	6-6-05	
6	GGJ	GGJ	TEH	GGJ	
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7					
Date	11-6-07	9-24-08	10-13-08	10-13-08	
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**DEPARTMENT OF PUBLIC WORKS
CITY ENGINEER DIVISION
Offsite Inspection and Testing Section**

**City of Las Vegas
Selected Backfill Material Report**

Procedure No. PWOIT-MT 103 Revision 6

The italicized and underlined sections of this policy note Revision 7 changes.

LAS VEGAS CITY COUNCIL

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P.E., P.T.O.E.**

1.0 PURPOSE:

- 1.1** This policy establishes the guidelines by which the City of Las Vegas (CLV) will review and approve the use of imported and native (in-situ) materials as Selected Backfill for utility trenches in public / private offsite improvement areas. The Selected Backfill zone is from the top of the Pipe Zone material to the top of the street or sidewalk subgrade within the offsite area. The public offsite area is defined from the back of sidewalk to back of sidewalk. The private offsite area is defined from the back of curb to back of curb on private streets. The CLV Quality Assurance (QA) Program is limited to monitoring the Selected Backfill material with periodic tests for public and private offsite improvements. A Final Selected Backfill Material Report is required to be submitted for review and approval from the project Quality Control (QC) Company for all projects.

2.0 REFERENCE CODES AND STANDARDS:

2.1 Associated CLV Procedures:

- 2.1.1** PWOIT MT 101, "Submittal of Report".
2.1.2 PWOIT MT 102, "Type III Pipe Zone Backfill Material Report".
2.1.3 PWOIT MT 105, "Trench Backfill Report".

2.2 Clark County Uniform Standard Specifications:

- 2.2.1** Section 105, "Control of Work".
2.2.2 Section 207 "Structural Backfill".
2.2.3 Section 208 "Trench Excavation and Backfill".
2.2.4 Section 704 "Base Aggregates".

2.3 Other:

- 2.3.1** NRS 338.176, NAC 625.550, the most current ASTM, AASHTO, NDOT test procedures as indicated in the applicable sections of the Uniform Standard Specifications.

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3.0 STATEMENT OF POLICY:

3.1 Submittal:

- 3.1.1** Submittal format shall be completed in accordance with the current CLV procedure and in compliance with the NRS 338.176 and NAC 625.550 statutes.
- 3.1.2** The project developer or their representative shall submit a transmittal letter and Selected Backfill Material Report to the CLV for review and approval. The transmittal shall be submitted and approved prior to utilization of the material. A written response will be issued.

3.2 Materials Not Meeting Select Backfill Material Specifications:

- 3.2.1** If the Geotechnical Engineer recommends the use of materials not meeting the Select Backfill Material specification requirements, specific recommendation parameters are required. The minimum information to be specified is:
- 3.2.2** Moisture range.
- 3.2.3** Minimum density requirement.
- 3.2.4** Maximum loose lift thickness.
- 3.2.5** Compaction Method.

NOTE 1: Only mechanical compaction method shall be used on material not meeting specification.

3.3 Use of Controlled Low Strength Material (CLSM) in the Final Backfill Zone:

- 3.3.1** The CLSM backfill shall be as specified in Clark County Standard Specifications, subsection 704.03.07 "Controlled Low Strength Material".
- 3.3.2** The use of the CLSM shall be as specified in Clark County Standard Specifications, subsection 208.03.09 "Use of CLSM" with the following clarifications:
 - 3.3.2.1** The CLSM mix design shall be an IQAC approved mix design or the mix design shall be submitted to the CLV for review and approval prior to the use of the mix design.
 - 3.3.2.2** A daily Placement Inspection report shall be written including the location of the CLSM placement. The location shall include as a minimum, the utility line being covered, the street name, the station to station location, and beginning and ending elevations.
 - 3.3.2.3** One set of six (6) four-inch diameter by eight-inch high test cylinders shall be made for every 150 cubic yards or fraction thereof. A report of the results shall be submitted to the CLV project inspector.

- 3.3.2.4 Placement of backfill or other materials on top to the CLSM shall not be allowed until the CLSM has passed the “ball drop” test per ASTM D602. Results of this test shall be submitted to the CLV inspector for their review and approval.

4.0 **REPORTS:**

4.1 **General Requirements for Report Content:**

- 4.1.1 The report shall include, at a minimum, the following information:
- 4.1.1.1 Revised reports shall include the issue date for the report being superseded, as well as the revision date.
 - 4.1.1.2 Project / Permit Name (per Off-Site Construction Permit Hard Card).
 - 4.1.1.3 Project / Permit Number (per Off-Site Construction Permit Hard Card).
 - 4.1.1.4 Project / Permit Plan Number (per Off-Site Construction Permit Hard Card).
 - 4.1.1.5 Referenced Reports shall be identified by the accepted QC report issue date and CLV acceptance letter date.
 - 4.1.1.6 The report must be prepared by, or under the direction of a Professional Engineer registered in the State of Nevada. The report shall be signed and stamped by the responsible engineer.
 - 4.1.1.7 Use the appropriate approved project Plan and Profile sheets to determine the specific location for the area being submitted for review and acceptance **for this report**. The locations shall be noted in the text of the report in a similar format as shown below:

Street Name	Station Number	to	Station Number

NOTE 2: If street names are revised after a construction phase report has been submitted to the CLV and approved by the CLV, subsequent construction phase reports shall reference the original street name as well as the revised street name.

NOTE 3: If an IQAC approved Type II Aggregate is used as Pipe Zone Backfill Material, include the Pit name and proctor information as shown on the approved IQAC list.

- 4.1.1.8 The report shall contain a statement that verifies the trench backfill material complies with the requirements and recommendations of the project geotechnical report, project plans, specifications, and current CLV policies and procedures.

4.1.1.9 Sieve Analysis.

4.1.1.10 Plastic Index.

4.1.1.11 Proctor information per current AASHTO T180 procedure and include a curve for each material type.

4.1.1.12 Plot plan with sample locations identified and areas indicated that are represented by the sample. The accepted area shall be in such a manner that the area is identifiable on "Xerox" copies.

4.1.1.13 If testing is provided by another laboratory, that data shall be stamped by the responsible engineer and included in the report.

4.2 Additional Requirements for Interim Report:

4.2.1 Interim (partial area release) reports for specific areas of work (i.e., utility trenches in the interior / exterior areas and / or portions of those areas) are acceptable; however the interim reports shall be referenced in the Final Selected Backfill Report.

4.2.2 The report title shall be "**Interim Selected Backfill Material Report**".

4.2.3 Referenced CLV approved reports.

4.2.3.1 Interim / Final Type III Pipe Zone Backfill Material Report.

Note 4: Reference only pertinent Interim/Final reports for the area(s) being accepted in this Interim report.

4.2.4 Report information / test data included with approved reports, per section 4.1.1.5, shall not be included with the report being submitted.

4.3 Additional Requirements for Final Report:

4.3.1 This is the **last report for this phase of work**, if Interim Reports were issued. It is the **only report** if Interim Reports were not issued. This report shall contain a statement that verifies that all of the exterior and all of the interior trench backfill material complies with the requirements and recommendations of the project geotechnical report, project plans, specifications, referenced construction phase reports, and current CLV policies and procedures. The report must be signed and stamped by the responsible engineer.

4.3.2 The report title shall be "**Final Selected Backfill Material Report**".

4.3.3 Referenced CLV approved reports.

4.3.3.1 Final Type III Pipe Zone Backfill Material Report.

4.3.3.2 Interim Selected Backfill Material Report.

Note 5: Reference only pertinent Interim/Final reports for the area(s) being accepted in this Interim report.

- 4.3.4 Report information / test data included with approved reports, per section 4.1.1.5, shall not be included with the report being submitted.

5.0 SAMPLING AND TESTING:

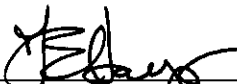
- 5.1 The material must be obtained and tested by a laboratory that is AASHTO accredited in the procedures being reported. The most current ASTM, AASHTO, NDOT test procedures shall be used. Testing requirements shall be from the applicable sections of the Uniform Standard Specifications and current CLV policies and procedures.

NOTE 4: The requirement for the AASHTO Accreditation is mandatory for all laboratories performing work submitted to the City of Las Vegas, Offsite Inspection and Testing, effective, March 1, 2008. Laboratories that are not accredited in the test procedures being submitted shall contact the City of Las Vegas, Offsite Inspection and Testing prior to submitting the test information.

- 5.2 Samples shall be obtained and tested for every 1000 lineal feet and fraction thereof. A minimum of (two) 2 samples per project. If interior and exterior streets are included in the project, representative samples shall be obtained from both areas.
- 5.3 The AASHTO Soils Classification shall be included in the report.
- 5.4 A moisture-density value and curve must be determined for each soil type present. The current AASHTO Method T180 shall be used.

6.0 EFFECTIVE DATE AND APPROVALS:


EFFECTIVE DATE: October 27, 2008



Thomas Hayes, P.E.
City of Las Vegas
Offsite Inspection and Testing Superintendent

10-13-08

Date



Gary G. Johnson
City of Las Vegas
Construction Testing Supervisor

10-9-08

Date